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AUTOBIOGRAPHICAL NOTES

By HENRY WETHERBEE HENSHAW

(Continued from page 181)

EQUIPMENT OF THE NATURALIST

MY equipment as naturalist was simple enough. A pair of roomy saddlebags enabled me to carry a few bottles for the reception of small specimens, especially insects, and a supply of cartridges, cotton, matches, and other trifles of like nature. I also carried an insect net attached somewhere about my person, while a good doubled-barreled shot-gun, slung on the horn of the saddle, completed my everyday outfit. Thus equipped and clad in rough but serviceable clothing, I have reason to believe that my personal appearance was more striking than ornamental. More than once, when I chanced to meet a solitary horseman on the lonesome trail I saw him slip a hand furtively behind to make sure that his gun was ready. Unquestionably my appearance was quite out of the ordinary, even in a wild country, where the old saw "clothes make the man" is lightly regarded, or not regarded at all, and was, perhaps, equally suggestive to the chance traveller of an escaped lunatic or a highwayman. The insect net particularly excited curiosity, but when I explained I was a "bug hunter from the Smithsonian" I was at once accepted as harmless.

Two stout boxes, one for supplies as powder, shot, arsenic, cotton, and the like, and the other fitted with trays in which to dry and carry bird and mammal skins, a copper tank of alcohol, enclosed for prudential reasons in a stout locked box, and a plant press, were also part of the naturalist's impedimenta. My skinning table was improvised by placing one collecting box on top of the other, and a folding stool enabled me to sit down and to skin birds with reasonable comfort, although several hours work usually developed a number of different sorts of backache.

As we seldom slept two nights in the same place, and as the bird and mammal skins had to be dried while being transported on mule back, I used to place them in paper cones, which I tacked securely to the bottom of the trays. Provided all went well, the skins dried in very good shape, but the stampede of the pack animals, no very rare event, was likely to deposit the skins in a heap in one corner of the tray, a catastrophe which necessitated much labor in reshaping them.

MODERN COLLECTING GUNS

The collector of today little realizes the boon he has inherited in the small bore guns which are such convenient and efficient collecting tools. When I began work on the Wheeler Survey all my collecting was done with a twelve

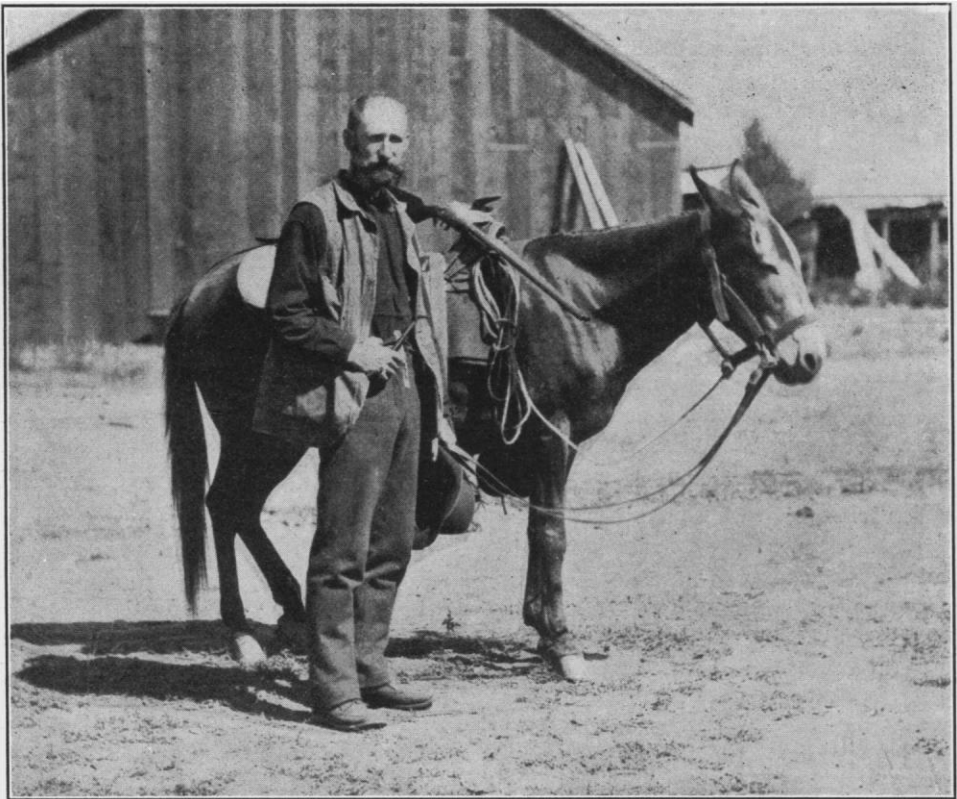


Fig. 46. HENRY WETTERBEE HENSHAW AS A MEMBER OF THE WHEELER EXPEDITION IN 1877; NOTE EQUIPMENT OF THE FIELD COLLECTOR OF THAT PERIOD.

gauge breech loader, a fearsome weapon to use on hummers and other small species. Brewster and I often discussed the possibility of a better collecting tool, and finally he had a Boston gunsmith make an auxiliary barrel for a twelve gauge gun, carrying a twenty-two cartridge. Meantime I had found in a Washington gun store a Remington cane gun. I had the rifling removed, and then began experimenting with the twenty-two extra long cartridges—if I mistake not just then brought out—and with various kinds of powders and

wads to determine the most effective load and the one making the least noise. Both the twenty-two auxiliary, and later the thirty-two and the cane gun, proved great successes, and in time practically all the collectors known to me were supplied with one or both, most of which were made in Washington.

DIFFICULTIES ATTENDING FIELD NATURAL HISTORY WORK

As has been stated, the main purpose of the Wheeler Survey was the mapping of the country traversed, while geology and natural history were but secondary objects. Thus most of the time our collecting had to be done while on the march, and the specimens cared for at night. Not rarely, in order to be sure and save rare birds I dismounted and used the saddle on my mule as a dissecting table, and I can assure my readers that the process is an interesting one and likely to tax all his skill and patience, especially when flies are numerous and the mule restive.

The route followed by our parties often carried us through territory unfruitful for the naturalist, although inviting collecting grounds might be visible in the adjacent mountains, which the exigencies of the topographical work forbade us to enter. While the chiefs of the parties furnished the scientific staff all the opportunities for their investigations possible consistent with the successful prosecution of the topographical work, even so, the results of our work were comparatively small, considering the time spent in the field. Much of the time Indians had to be reckoned with, even when not openly hostile, and the scientific assistants were directed always to carry the revolver or carbine formally issued to them. These proved a nuisance, and I am happy to say were never actually needed. Indeed they proved worse than useless, since revolvers in unaccustomed hands resulted in the death of one member of the Survey and the disabling of another.

LENGTH OF FIELD SEASON AND OFFICE WORK

The length of our field seasons varied much, depending largely on the time of the passage of the appropriation bills, say from June till November, or even December. Field work completed, there followed the office work in Washington where reports of progress and final reports were completed. Much to my regret my own reports on the birds were limited strictly to the results obtained by myself and the other members of the Expedition, which of course materially limited their scope.

MAMMALS OF THE UNITED STATES

Recalling my several years experience as a collecting naturalist in the far west, it seems strange how small was the number of mammals collected compared with that of birds. While it was true that I was much more interested in birds than in mammals, I was fully alive to the importance of securing all the mammals possible, and never allowed an opportunity to collect them, especially the smaller species, to pass unimproved.

The fact is that the earlier naturalists knew practically nothing about trapping, even if the speed with which they usually traversed the country had not precluded the systematic use of traps. Mammals of the size of rabbits and squirrels were easily obtained, and I collected many, as did my predecessors. But the presence of the smaller rodents, especially mice and other nocturnal species, was only dimly suspected, and these were obtained for the most part only when chance threw them in the way of the collector. Moreover, even as

late as the early eighties most of us had come to believe that practically all the mammals of the country had been collected and described, and it was not until the days of the Biological Survey that a hint of the real richness of the mammal life of the country was made known. By 1885 Merriam had revolutionized the making of mammal skins, following in a general way the model of the perfected bird skin. Instead of flat and shapeless things, mammals skins became for the first time, if not things of beauty, at least shapely and durable specimens, which admirably served the purposes of scientific study.

Having employed Vernon Bailey in Minnesota about 1883 to trap small mammals, Merriam soon learned what could be accomplished by the use of traps in skilled hands. The Survey was established in 1885, but it was not until several years later that the survey naturalists began a systematic and exhaustive search for mammals, which they were able to do owing to the invention of the several types of small traps. These proved a practical and efficient means of securing small mammals in any numbers desired for systematic study. The result was series of small mammals hitherto undreamed of, and scores of new forms were obtained in the very territory which the earlier naturalists had found comparatively barren.

Thus in 1885 there were known from the territory north of Mexico approximately only 363 species of mammals, large and small. In 1900, 1450 had been described and recorded; while in 1912 the number recorded by Miller in his check list had reached a total of 2138! At the present time the number of described forms is probably not far from 2500. These figures are only approximately correct, since authorities differ rather widely as to the status of many of the forms, and as to the concept of species and varieties. Nevertheless the greater number of the forms described were new to science in every sense of the word, and their discovery was chiefly due to improved methods of search, especially to improved traps and to skilful and systematic trapping.

THE OLD SOUTH TOWER

In the seventies, Robert Ridgway and Doctor Coues used to do much of their writing in a room near the top of the old south tower of the Smithsonian building, and many were the pleasant hours I spent there in their company and that of visiting ornithologists, as Wheaton, Sennett, Brewster, Merriam and others, who occasionally made pilgrimages to Washington with specimens for examination and field experiences to narrate.

Doctor Coues' readiness to break off work for a chat was always signified by pulling forth the human skull in which he stored his tobacco and rolling a cigarette, when he was ready for reminiscences or discussion. It may interest my readers to know that Dr. Coues' real "working day" at home began about nine or ten o'clock at night and continued till early morning, say two or three o'clock. Then he slept for several hours, followed by breakfast whenever he felt inclined to arise. Hence he usually reached the Smithsonian about noon, when he opened his mail, and began his afternoon's labor of writing, or examining specimens, as the mood prompted him.

He had a small collection of birds in the tower, about 300 in number, which I remember as a somewhat miscellaneous assortment, many of which, no doubt, had been given him by friends. These he presented to the Museum in 1881, and the same year Mr. Ridgway turned in his fine collection of North American and tropical birds, amounting to some 2300 skins. Later, a rule of the Museum was

promulgated prohibiting any Curator from maintaining a private collection of his own. The rule, which seems to me to be a wise one, was evidently intended to prevent a division of interest, and to focus all the time and attention of the Curators upon the Museum collections.

THE WEST BASEMENT

Another scientific sanctuary in the old Smithsonian building, redolent of many odors and fond memories, was the west basement, in a room of which was stored the extensive collection of reptiles and batrachians, the accumulation of years by the western survey expeditions and of donations from private individuals. Here Dr. Yarrow and I spent much time preparing reports on the collections of the Wheeler Survey. Here also Dr. Yarrow made some interesting experiments with live snakes. Not rarely Prof. Baird looked in upon us as he passed along on one of his frequent inspection trips through the building. Here also occasionally came Prof. E. D. Cope, whose astonishing memory for natural history details was always a source of wonder to me. Here also I used to see Prof. David Jordan at work on fishes when he made one of his rare visits to Washington.

ACQUAINTANCE WITH DR. D. WEBSTER PRENTISS

Mention of Dr. Coues' name naturally recalls that of his associate in the publication of the earliest list of the birds of the District of Columbia, Dr. D. W. Prentiss. Coues and Prentiss were college mates at the Columbian University between the years 1858-1862. Their first list of the birds of the District was published in 1862 in the annual report of the Smithsonian Institution for 1861, and was the result of much boyish enthusiasm in the study of birds, together with no small amount of hard work. Needless to say that for the time it was an excellent piece of work. Nearly twenty-five years later was published in 1883 their "*Avifauna Columbiana*" which brought the subject up to date, and in many ways marked a great advance over its predecessor.

Soon after, both men entered the army as surgeons in the Civil War. After the war the demands of a growing practice in Washington caused Dr. Prentiss to relinquish all active work in ornithology, but he never entirely forgot his old love, and in the early eighties he and I made a number of trips after warblers to my favorite collecting grounds along the banks of the picturesque Rock Creek, the site of the present National Zoological Park. On these occasions we were up betimes in the morning, and after a hasty bite were off so as to be on the ground between four and five o'clock, a time of day dear to all bird collectors. I recall with pleasure the Doctor's enthusiasm over the first Blackburnian Warbler he collected and the first he had ever seen.

The Doctor was something of a sportsman in his younger days, and among other reminiscences, told me that, as boys, he and Dr. Coues had killed English snipe in a "little springy place" on Dupont Circle, in the heart of what is now, or recently was, the fashionable residence part of Washington. He and I made one memorable trip to the Patuxent River after soras when an extraordinarily high tide flooded the marshes, and gave such shooting as comes to a man, if at all, but once in his life.

ACQUAINTANCE WITH GEO. N. LAWRENCE

During my annual trips from Washington to Boston I never failed to call on the veteran ornithologist, Geo. N. Lawrence, in New York. As I made my

way from the train directly to his house, and, as I arrived early in the morning, usually Sunday, I generally found him, where he naturally would be expected to be, in bed. However, he always arose with alacrity, and before a bright fire in his study was ready for a talk on my last season's work, and for the exhibition of any notable specimens he had received from the Tropics since my last visit. He was a very genial and courteous gentleman of the old school, and retained his interest in ornithology to the last.

DUPLICATES OF WESTERN BIRDS ASSIGNED TO ME

My interest in collecting large series of western birds was greatly increased by the privilege accorded me by Lieut. Wheeler, and assented to by Prof. Baird, of selecting from the duplicates of each year a series for my own collection. In those days western birds were rare indeed, and my collection soon became very valuable as a study series. With the permission of Prof. Baird I finally brought it to Washington and stored it in the Smithsonian, within easy access of Mr. Ridgway and myself, and I was enabled in my spare time to rearrange, label and prepare a card catalogue of it. This card catalogue is still extant and has proved valuable to others besides myself for reference purposes.

(To be continued)

BIRD NOTES FROM SASKATCHEWAN

By H. H. MITCHELL

WITH THREE PHOTOS

PROBABLY Saskatchewan, of all the Canadian Provinces, is the least known from an ornithological point of view. With an area equal to the states of North Dakota, South Dakota and Nebraska, it consequently offers a large field of possibilities. In the south-west, bordering on the state of Montana, is an arid, or semi-arid district, the more or less rolling prairie of which is broken by the low, partly wooded Cypress Hills, with considerable sage-brush on the southern slopes. Farther north and eastward is the more level wheat-producing bare prairie. Partly wooded areas then extend northward to the Saskatchewan River, north branch, beyond which is the comparatively little known forest country, with its larger lakes, reaching Lake Athabaska and Reindeer Lake near the northern boundary of the province.

Spizella breweri. Brewer Sparrow. It was in the district first mentioned above, in the valley of the Frenchman River, that I found this species, June 16, 1919, evidently breeding in numbers in the sage-brush patches on the river-flats and open southern slopes of the Cypress Hills. I believe the birds were fairly common between Eastend and Ravenscrag, possibly extending to points farther west. Time permitted me only to work a few miles west of Eastend, mostly on the ranch of Mr. Lawrence Potter, who, by the way, is one of our few reliable bird observers. Along the valley on his ranch alone we estimated